What is claimed is:

- 1. A method for doing call classification on a call to a
- destination endpoint, comprising the steps of:
- 3 receiving audio information from the destination
- 4 endpoint;
- 5 analyzing received audio information for words using
- 6 automatic speech recognition; and
- determining the call classification from the analyzed
- 8 words.
- The method of claim 1 wherein the analyzed words
- 2 are formed as phrases.
- 3. The method of claim 1 wherein the step of
- 2 analyzing comprises performing front-end feature extraction on
- 3 the received audio information to produce a full feature vector.
- 4. The method of claim 3 wherein the step of
- 2 analyzing further comprises computing log likelihood probability
- 3 from the full feature vector.
- 5. The method of claim 4 wherein the step of
- analyzing further comprises updating a dynamic programming
- 3 network used in the step of analyzing in response to the
- 4 computed log likelihood probability.

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- 6. The method of claim 5 wherein the step of updating 1 comprises the step of executing an Viterbi process. 2
- 7. The method of claim 5 further comprises the step 1 of pruning the nodes in the dynamic programming network used 2 in the step of analyzing. 3
- 8. The method of claim 7 further comprises the step 1 of expanding a grammar network used in the step of analyzing. 2
- 9. The method of claim 8 further comprises the step 1 of performing grammar backtracking in response to the 2 expanded grammar network. 3
- 10. The method of claim 9 wherein the step of backtracking comprises the step of executing another Viterbi 2 process. 3
- 11. The method of claim 1 wherein the step of 1 determining comprises executing an inference engine in 2 response to analyzed words. 3
- 12. The method of claim 11 further comprises the 1 step of analyzing the audio information to detect tones; and 2 the step of determining further responsive to the 3 detection of tones for determining the call classification. 4
 - 13. The method of claim 12 further comprises the

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- step of analyzing the audio information to identify energy in the
 audio information; and
- the step of determining further responsive to the identification of energy for determining the call classification.
- 14. The method of claim 13 further comprises the step of analyzing the audio information to identify zero crossings in the audio information; and

the step of determining further responsive to the identification of zero crossings for determining the call classification.

- 15. A method for doing call classification on a call to a destination endpoint, comprising the steps of:
- receiving audio information from the destination endpoint;
 - analyzing received audio information for a first classification;
- analyzing received audio information using automatic
 speech recognition for a second classification; and
- determining the call classification from the first classification and the second classification.
- 1 16. The method of claim 15 wherein the first 2 classification is one of tone detection, energy analysis, or zero 3 crossing analysis.

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1	17. The method of claim 16 further comprises the
2	step of analyzing for a third classification; and
3	the step of determining further responsive to the third
4	classification.

- 18. The method of claim 17 wherein the third classification is one of tone detection, energy analysis, or zero crossing analysis.
 - 19. The method of claim 18 wherein the step of determining comprises executing an inference engine.
 - 20. The method of claim 19 wherein the step of analyzing received audio information using automatic speech recognition comprises the step of executing a Hidden Markov Model.
- 21. An apparatus for classifying a call to a called
 destination endpoint, comprising:
- a receiver for receiving audio information from the
 called destination endpoint;
- automatic speech recognizer for determining words in
 the received audio information; and
- an inference engine for classifying the call destination endpoint in response to the determined words.
 - 22. The apparatus of claim 21 wherein the

- determined words are formed as phrases.
- 1 23. The apparatus of claim 21 further comprises an
- 2 analyzer for determining another classification from the
- 3 received audio information.
- 1 24. The apparatus of claim 23 wherein the analyzer is
- one of a tone detector, energy detector, or a zero crossings
- 3 detector.
- 1 25. The apparatus of claim 24 wherein the automatic
- speech recognizer is executing a Hidden Markov Model.